

MIN 6510 SR-21

Special Report No. 21  
May 1991

WATER RESOURCES  
RESEARCH CENTER

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# Directory of Water Resources Expertise in Minnesota Universities and Colleges



minnesota water resources research center



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DIRECTORY OF  
WATER RESOURCES EXPERTISE  
IN  
MINNESOTA UNIVERSITIES AND COLLEGES

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Special Report

No. 21

*Water Resources Research Center  
1518 Cleveland Avenue North  
University of Minnesota  
St. Paul, MN 55108  
(612)624-9282  
FAX (612)625-1263*

May 1991

## FOREWORD

Minnesota's extensive surface and groundwaters are a matchless treasure in which the state takes considerable pride. The diverse talent and expertise related to aquatic resources that resides in the state's universities and colleges likewise is an impressive state resource. This publication lists the faculty and professional staff in Minnesota's institutions of higher education who have research interests and technical expertise in disciplines that contribute to the management and understanding of water resources. Individuals are listed alphabetically, and brief descriptions of their interests and activities are included. Separate indices of individuals grouped according to research interests and institutions are provided, along with a phone directory.

By its nature, water resources research is very diverse and encompasses many disciplines. As a result, the experts listed in this directory work in a large number of centers, departments, and colleges throughout the state. We hope that this directory will be useful to persons listed in it by providing a ready means of locating colleagues with related interests. We also hope that the directory will be useful to state, regional, and local water management agencies and private firms that may have a need for technical expertise to complement "in-house" staffs.

In spite of our efforts to make this publication and all-inclusive list of academic expertise in Minnesota's universities and colleges, we probably missed some individuals. We hope those persons will contact the *Water Resources Research Center* so that we can include them in revisions to the directory. We also would appreciate hearing from persons included in the directory for corrections, additions, and updates to their statements of interest. This directory is also available in IBM-compatible computer database format (Paradox.db, ASCII.txt, and WP51 final draft). Individuals interested in a diskette copy should contact the WRRC.

Patrick L. Brezonik, Director  
Water Resources Research Center  
May 1991

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# MINNESOTA UNIVERSITIES AND COLLEGES WATER RESOURCES FACULTY

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**Robinson S. Abbott**, Professor of Biology

Department of Biology  
University of Minnesota-Morris  
Division of Science and Mathematics  
Morris, MN 56267  
612-589-2211 ex: 6335

*Biology of water resources; filamentous algae;  
algae as ecological indicators; aquatic  
macrophytes.*

**Russell S. Adams**

Professor of Soil Biochemistry  
Department of Soil Science  
University of Minnesota  
439 Borlaug Hall  
St. Paul, MN 55108  
612-625-4229

*Soil biochemistry; pesticide residues; animal  
and yard wastes.*

**Ira R. Adelman**, Professor and Head

Department of Fisheries & Wildlife  
University of Minnesota  
1980 Folwell Avenue  
St. Paul, MN 55108  
612-624-3600  
FAX: 625-5299

*Environmental physiology of fishes; aquatic  
toxicology; aquaculture.*

**E. Calvin Alexander Jr.**, Professor

Department of Geology and Geophysics  
University of Minnesota  
310 Pillsbury Drive SE  
Minneapolis, MN 55455  
612-624-3517

*Karst environmental geohydrology;  
groundwater pollution problems in  
fractured aquifers; nonpoint source  
pollution problems; age and residence times  
of groundwaters; tracing of subsurface  
flow; isotope geohydrology.*

**Deborah Allan**, Assistant Professor

Department of Soil Science  
University of Minnesota  
1991 Upper Buford Circle  
St. Paul, MN 55108  
612-625-3158  
FAX: 612-625-2208

*Use of plants for bioremediation of hazardous  
wastes; pesticide degradation.*

**Raymond R. Allmaras**

Professor/Soil Scientist  
Department of Soil Science  
University of Minnesota  
439 Borlaug Hall  
St. Paul, MN 55108  
612-625-1742  
FAX: 612-625-2208

*Soil physics and soil management; tillage  
systems; soil erosion; plant root  
development.*

**Donald N. Alstad**, Professor

Evolution and Behavior Biology  
University of Minnesota  
211 Zoology  
Minneapolis, MN 55455  
612-625-0488

*Stream suspension feeding communities;  
aquatic insect communities.*

**Curt L. Anderson**

Associate Professor of Economics  
Department of Economics  
University of Minnesota-Duluth  
156 School of Business and Economics  
Duluth, MN 55812  
218-726-7568

*Valuation of water and other environmental  
resources; benefit-cost analysis of  
environmental uses.*

**Garry G. Anderson**, Professor  
Department of Earth Sciences  
St. Cloud State University  
St. Cloud, MN 56301  
612-255-2014

*Hydrology; groundwater; geohydrology;  
sedimentology; physical stratigraphy.*

**James L. Anderson**, Associate Professor  
Department of Soil Science  
University of Minnesota  
S501 Soils Building  
St. Paul, MN 55108  
612-625-8209  
FAX: 612-625-2208

*Soil treatment of septic tank effluent; impact of  
agricultural management on groundwater.*

**Paul M. Anderson**, Professor  
Biochemistry and Molecular Biology  
University of Minnesota-Duluth  
252 Med  
Duluth, MN 55812  
218-726-7921  
FAX: 218-726-6235

*Biochemistry, enzymology, energy metabolism,  
nitrogen metabolism; urea cycle and  
energy metabolism in fish.*

**Thomas L. Anding**, Associate Director  
Center for Urban and Regional Affairs  
University of Minnesota  
330 Hubert H. Humphrey Center  
Minneapolis, MN 55455  
612-625-1551

*Land use issues as related to water quality;  
intergovernmental nature of water policy;  
interface between economic development  
and the environment.*

**Roko Andricevic**, Research Associate  
Civil and Mineral Engineering  
University of Minnesota  
Mississippi River  
3rd Avenue SE  
Minneapolis, MN 55414  
612-627-4592  
FAX: 612-627-4592  
E-MAIL: ANDRI@UMNACVX.BITNET  
*Management and monitoring of water  
resources; transport of reactive solutes in  
porous media.*

**Roger E.A. Arndt**, Director and Professor  
Civil and Mineral Engineering  
University of Minnesota  
St. Anthony Falls Hydraulics Laboratory  
Mississippi River at 3rd Ave. S.E.  
Minneapolis, MN 55414  
612-627-4012  
FAX: 612-627-4609  
*Aeration; hydropower; fluid mechanics;  
groundwater hydrology; hydraulics.*

**Richard Axler**, Research Associate  
Center for Water and the Environment  
University of Minnesota-Duluth  
Natural Resources Research Institute  
Duluth, MN 55811  
218-720-4316 218-720-4279  
FAX: 218-720-4219  
*General limnology; factors regulating primary  
production; nutrient cycling; food chain  
dynamics; pollutant effects on aquatic  
ecosystems; acid deposition impacts.*

**Dale R. Baker**, Extension Leader  
Sea Grant Extension  
University of Minnesota  
208 Washburn Hall  
Duluth, MN 55812  
218-726-8108  
*Great Lakes water levels; erosion; dredging;  
water quality issues; coastal transportation.*

**Donald G. Baker**, Professor  
Department of Soil Science  
University of Minnesota  
S-331 Borlaug Hall  
St. Paul, MN 55108  
612-625-6235

*Weather forecasting in U.S.; Europe and Asia;  
agricultural climatology; meteorology and  
applied climatology; evapotranspiration.*

**Eugene B. Bakko**, Associate Professor  
Department of Biology  
Saint Olaf College  
Northfield, MN 55057  
507-663-3399

*Ecology; culture and agriculture; groundwater;  
soil erosion and runoff.*

**Nicholas T. Basta**, Soil Scientist  
N. Central Soil Conservation Research Lab  
North Iowa Avenue  
Morris, MN 56267  
612-589-3411

*Soil Chemistry; applied analytical chemistry;  
pesticide chemistry.*

**Robert A. Bellig**, Associate Professor  
Biology Department  
Gustavus Adolphus College  
St. Peter, MN 56082  
507-931-1176

*Ecology and distribution of fishes; stream  
fishes of southern Minnesota; ecology of  
warm water streams.*

**George R. Benoit**, Supervisory Soil Scientist  
N. Central Soil Conservation Research Lab  
U.S. Department of Agriculture/ARS  
Morris, MN 56267  
612-589-3411

*Effects of soil freezing on physical properties  
related to movement and retention of soil  
water, nutrients (nitrogen) and pesticides  
and as physical properties influence soil  
erodibility.*

**Erwin R. Berglund**, Adjunct Professor/Senior  
Hydrologist

Division of Minerals  
University of Minnesota  
MN Department of Natural Resources  
500 Lafayette Rd.  
St. Paul, MN 55155-4045  
612-297-1125  
FAX: 612-296-5939

*Hydrology of taconite mineland reclamation  
and of peatlands; peat mining and  
reclamation.*

**Fred G. Bergsrud**  
Extension Agricultural Engineer  
Department of Agricultural Engineering  
University of Minnesota  
209 Agricultural Engineering  
St. Paul, MN 55108  
612-625-7733

*Irrigation; agricultural drainage; water  
quality; water resource management.*

**Robert Bixby**, Associate Professor  
Department of Geography  
St. Cloud State University  
317 Stewart Hall  
St. Cloud, MN 56301  
612-255-2170 612-255-3160

*Water and adjacent land uses; regulating  
permitting structures; water frontage  
development; ordinance writing; local  
comprehensive water planning; water use  
conflicts.*

**Paul R. Bloom**, Professor  
Department of Soil Science  
University of Minnesota  
460 Borlaug Hall  
St. Paul, MN 55108  
612-625-4711  
FAX: 612-625-2208

*Mineral weathering processes; effects of acid  
deposition on soils; forest soils; inorganic  
processes in soils and sediments;  
dissolution kinetics of minerals.*

**Bruce A. Bloomgren**, Scientist  
Minnesota Geological Survey  
University of Minnesota  
2642 University Avenue  
St. Paul, MN 55114  
612-627-4784  
FAX: 612-627-4778

*Paleozoic stratigraphy of Minnesota;  
subsurface bedrock geological mapping;  
supervision of the Minnesota Geological  
Survey's Subsurface Database (water wells  
plus some soil borings and test holes).*

**Patrick L. Brezonik**, Professor  
Civil and Mineral Engineering  
Director: Water Resources Research Center  
University of Minnesota  
500 Pillsbury Drive  
Minneapolis, MN 55455  
612-625-0866 (CME)  
612-624-9282 (WRRC)  
WRRC FAX: 612-625-1263

*Water quality; pollutant behavior in lakes;  
aquatic effects of acid precipitation; water  
chemistry; environmental cycles.*

**Kenneth N. Brooks**, Professor  
Director of Graduate Studies in Forestry  
College of Natural Resources  
University of Minnesota  
235 NRAB  
St. Paul, MN 55108  
612-624-2774

*Forest hydrology; peatland/wetland hydrology;  
hydrologic modeling; role of watershed  
management in sustainable development.*

**Dwight A. Brown**, Professor  
Department of Geography  
University of Minnesota  
414 Social Science Building  
Minneapolis, MN 55455  
612-625-9097

*Spatial and temporal variability of water  
resources; fluvial processes; simulation  
modeling; geographic information systems;  
water resources application of remote  
sensing; environmental change.*

**C.E. Buchwald**, Professor  
Department of Geology  
Carleton College  
One North College Street  
Northfield, MN 55057  
507-663-4403  
FAX: 507-663-4204

*Weathering and sediment production; public  
policy and education.*

**Douglas D. Buhler**  
Associate Professor/Research Agronomist  
Dept of Agronomy and Plant Genetics  
University of Minnesota  
411 Borlaug Hall  
St. Paul, MN 55108  
612-625-6719  
FAX: 612-625-1268

*Herbicide dissipation and transport in soil;  
weed management systems that reduce  
environmental impacts of crop production.*

**Orvin C. Burnside**  
Professor of Weed Science  
Department of Agronomy & Plant Genetics  
University of Minnesota  
308 Agronomy Building  
1991 Buford Circle  
St. Paul, MN 55108  
612-625-8761  
FAX: 612-625-1268

*Pesticides and water quality; herbicides;  
integrated weed management; non-chemical  
weed control systems.*

**Charles H. Carlin**, Professor  
Department of Chemistry  
Carleton College  
Northfield, MN 55454  
507-663-4413

*Organic Microanalysis; natural systems.*



**Robert M. Carlson**, Professor  
Department of Chemistry  
University of Minnesota-Duluth  
Duluth, MN 55812  
218-726-7231

*Water disinfection chemistry; method development for trace level organic analysis; predictive toxicology.*

**Val W. Chandler**, Adjunct Professor  
Minnesota Geological Survey  
University of Minnesota  
2642 University Ave.  
St. Paul, MN 55114  
612-627-4780

*Exploration geophysics; gravity and magnetic methods; crustal studies.*

**Fu-Hsian Chang**  
Professor of Environmental Studies  
Center for Environmental Studies  
Bemidji State University  
Room 128 Sattgast Hall  
Bemidji, MN 56601  
218-755-2910 (o) 218-755-1344 (h)  
FAX: 218-755-4048

*Biodegradation and modeling of microbial fate of organic pollutants in surface and subsurface environments; treatment and recovery of waste materials; wastewater treatment using biological means; groundwater pollution control; bioremediation.*

**H.H. Cheng**, Professor and Head  
Department of Soil Sciences  
University of Minnesota  
439 Borlaug Hall  
St. Paul, MN 55108  
612-625-9734  
FAX: 612-625-2208  
E-MAIL: BITNET: HCHENG@UMINN1

*Soil chemistry and environmental analytical chemistry; nitrogen cycling in the environment; fate of pesticides in the environment; behavior of nitrates and pesticides in soil and effects on ground water quality.*

**Charles J. Clanton**, Assistant Professor  
Department of Agricultural Engineering  
University of Minnesota  
1390 Eckles Avenue  
St. Paul, MN 55108  
612-625-9218  
FAX: 612-624-3005

*Agricultural waste management; food processing waste management; land application of waste; on-site sewage treatment.*

**C. Edward Clapp**, Professor  
Department of Soil Science  
University of Minnesota  
US Department of Agriculture  
S527 Soil Science Building  
St. Paul, MN 55108  
612-625-2767

*Soil organic matter; water quality; humic substances; nitrate pollution.*

**Jane Cleland**, Geologist  
Minnesota Geological Survey  
University of Minnesota  
2642 University Avenue  
St. Paul, MN 55114  
612-627-4780

*Hydrogeology.*

**Roger D. Clemence**, Professor  
College of Architecture & Landscape  
University of Minnesota  
110 Architecture  
Minneapolis, MN 55455  
612-624-4550

*Aesthetic dimensions of water in the landscape; ecological issues.*

**Yosef Cohen**, Associate Professor  
 Department of Fisheries and Wildlife  
 University of Minnesota  
 200 Hodson Hall  
 St. Paul, MN 55108  
 612-624-2255  
 FAX: 612-625-5299  
 E-MAIL: SBPQ@UMINN1  
*System analysis; application of control theory;  
 ecosystems modeling; population modeling;  
 GIS.*

**Sheree L. Cohn**  
 Director of Environmental Studies  
 Department of Biological Sciences  
 St. Cloud State University  
 720 4th Avenue South  
 St. Cloud, MN 56301-4498  
 612-255-4911 612-255-2039 (Sec.)  
*Historical vegetation distribution and water  
 quality; regional analysis of source  
 identification of groundwater  
 contamination; sublethal effects to aquatic  
 vegetation from surrounding land use.*

**Hollie L. Collins**, Professor  
 Department of Biology  
 University of Minnesota  
 Life Sciences 323  
 Duluth, MN 55812  
 218-726-7259  
*Animal behavior; fish biology; aquaculture;  
 predator/prey dynamics of Lake Superior  
 fishes; aquaculture of the Ribbon (bait)  
 leech; life history of fishes.*

**Thomas W. Collins**, Professor  
 Department of Biology  
 Moorhead State University  
 Moorhead, MN 56560  
 218-236-2361  
*Ichthyology; limnology.*

**Patrick M. Condon**, Professor  
 Department of Horticultural Science and  
 Landscape Architecture  
 University of Minnesota  
 207 North Hall  
 Minneapolis, MN 55455  
 612-626-1231  
*Design landscape space topology; climate  
 issues; aquifer protection at municipal  
 level; effects of land use policy on  
 environmental and water quality.*

**James A. Cooper**, Associate Professor  
 Dept. of Fisheries & Wildlife  
 University of Minnesota  
 104 Hodson Hall  
 St. Paul, MN 55108  
 612-624-1223  
*Waterfowl specialist; wetlands; influence of  
 water level in wetlands; effects of  
 chemicals on non target species in  
 wetlands.*

**Terence H. Cooper**, Associate Professor  
 Soil Science  
 University of Minnesota  
 439 Borlaug Hall  
 St. Paul, MN 55108  
 612-625-7747  
*Land use; soil morphology characteristics and  
 influence on water quality.*

**James F.P. Cotter**  
 Associate Professor of Geology  
 Department of Science and Mathematics  
 University of Minnesota-Morris  
 Science Building  
 Morris, MN 56267  
 218-589-6312  
*Surficial geology; groundwater; groundwater  
 pollution.*

**William J. Craig**, Assistant Director  
Center for Urban & Regional Affairs  
University of Minnesota  
330 Humphrey Center  
Minneapolis, MN 55455  
612-625-1551  
FAX: 612-626-0273

*Public policy analysis; geographic information systems; survey research on outdoor recreation.*

**Edward J. Cushing**, Professor  
Ecology Evolution and Behavior  
University of Minnesota  
213 Zoology  
318 Church Street SE  
Minneapolis, MN 55455  
612-625-9415  
FAX: 612-625-4490  
E-MAIL: CUSHING@UMNACVX.Bitnet

*Quaternary paleoecology; plant ecology; paleolimnology; glacial geology; paleohydrology.*

**Edward L. Cussler**, Professor  
Department of Chemical Engineering  
University of Minnesota  
421 Washington Avenue SE  
Minneapolis, MN 55455  
612-625-1596 612-625-1313  
FAX: 612-626-7246

*Basic research on physical-chemical processes applicable to contaminant removal and pollution control including bioseparations; gel extractions; membrane separation processes and hydrogels; diffusion and mass transfer.*

**Duane Dahlberg**, Associate Professor  
Department of Physics  
Concordia College  
Moorhead, MN 56562  
218-299-3395  
FAX: 218-299-3947

*Atmospheric water pollution; acid rain.*

**Margaret B. Davis**  
Regents Professor of Ecology  
Ecology Evolution and Behavior  
University of Minnesota  
201 Zoology  
318 Church Street SE  
Minneapolis, MN 55455  
612-625-1102  
FAX: 612-625-4450

*Paleoecology and paleolimnology; watershed-lake interactions; forest history; sedimentation processes in lakes.*

**Naomi Detenbeck**, Research Associate  
Center for Water and the Environment  
University of Minnesota-Duluth  
Natural Resources Research Institute  
5013 Miller Trunk Highway  
Duluth, MN 55811  
218-720-4265 218-720-4279  
FAX: 218-720-4219

*Biogeochemistry of lake sediments; algal physiology; periphyton; nutrient cycling; wetland water-quality function; landscape ecology; effects of disturbance on aquatic ecosystems.*

**George A. Donohue**, Professor  
Department of Sociology  
University of Minnesota  
58 Classroom Office Building  
St. Paul, MN 55108  
612-625-8703

*Social conflict.*

**Dianne Dorland**, Department Head  
Chemical Processing Engineering  
University of Minnesota-Duluth  
231 Engineering Building  
Duluth, MN 55812  
218-726-7126

*Heavy metal partitioning between water and gas phases during scrubbing; toxic contaminants in sediments; industrial pollution and wastewater treatment; GIS data management for environmental analysis; experimental design for industry.*

**Robert H. Dowdy**, Research Leader  
Department of Soil Science-USDA-ARS  
University of Minnesota  
439 Borlaug Hall  
St. Paul, MN 55108  
612-625-7058  
FAX: 612-625-2208

*Soil chemistry; conservation tillage.*

**William L. Downing**, Professor Emeritus  
Department of Biology  
Hamline University  
St. Paul, MN 55104  
612-644-9625

*Zoology; unionid mussels of northeastern Minnesota and their relationship to acidic precipitation; aquatic biology; quality of water in oligotrophic lakes.*

**Kirt A. Dreyer**, Professor & Chairman  
Department of Chemistry  
Bemidji State University  
Bemidji, MN 56601  
218-755-2784

*Inorganic chemistry; metal complexes; equilibrium systems; trace analysis.*

**Wayne E. Dunbar**, Professor  
Department of Chemistry  
Winona State University  
Winona, MN 55987  
507-457-5297

*Analytical chemistry; plasma emission; metal analysis; industrial problem solving associated with effluent waters; water quality (industrial and wastewater treatment).*

**K. William Easter**, Professor  
Agricultural and Applied Economics  
University of Minnesota  
317G Classroom Office Building  
St. Paul, MN 55108  
612-625-7728  
FAX: 612-625-6245

*Water resource management in the U.S. and in Asia; benefit/cost analysis including investment strategies for different natural resource systems such as watersheds; and water pollution problems in the U.S. with particular emphasis on agricultural pollution.*

**E. R. G. Eckert**, Regents Professor Emeritus  
Department of Mechanical Engineering  
University of Minnesota  
125 Mechanical Engineering  
111 Church Street SE  
Minneapolis, MN 55455  
612-625-8010  
FAX: 612-624-1398

*Thermodynamics; fluid dynamics; flow through porous media; heat and mass transfer.*

**Vernon Eidman**, Professor  
Agricultural and Applied Economics  
University of Minnesota  
316 Classroom Office Building  
St. Paul, MN 55108  
612-625-7028

*Water resources economics; irrigation; water policy.*

**Steven J. Eisenreich**  
Professor of Environmental Chemistry  
Gray Freshwater Biological Institute  
University of Minnesota  
500 Pillsbury Drive  
Navarre, MN 55455  
612-625-3082

*Environmental chemistry and water chemistry; fate of organic and inorganic contaminants.*

**Daniel R. Engstrom, Research Associate**

Limnological Research Center  
University of Minnesota  
220 Pillsbury Hall  
Minneapolis, MN 55455  
612-624-1881  
FAX: 612-625-3819  
E-MAIL: DRE@UMNACVX

*Quaternary paleoecology; paleolimnology,  
limnology, and sediment dating,  
sediment geochemistry, saline lakes,  
paleohydrology.*

**Samuel D. Evans, Soil Scientist**

West Central Experiment Station  
University of Minnesota  
Morris, MN 56267  
612-589-1711

*Soil fertility management; soil management;  
manure management.*

**Raymond A. Faber, Professor**

Department of Biology  
St. Mary's College  
Terrace Heights  
Winona, MN 55987  
507-457-1540

*Wildlife toxicology; effects of environmental  
contaminants on fish-eating birds including  
herring gull, black tern, black-crowned  
night heron, and double-crested cormorant;  
effects of dietary lead on tundra swans.*

**Laurence L. Falk, Professor of Sociology**

Department of Sociology and Social Work  
Concordia College  
Moorhead, MN 56560  
218-299-3545

*Relation of social systems to water use;  
decisioning processes relative to water use;  
value ranking and priority fixing;  
conservation measures and emergency  
alternatives.*

**Daniel A. Farber**

Henry J. Fletcher Professor of Law  
Law School  
University of Minnesota  
350 Law Center  
229 19th Avenue South  
Minneapolis, MN 55455  
612-625-1022 612-625-7868 (Sec)  
FAX: 612-625-3478

*Clean water act; environmental impacts  
statements; toxic pollution; hazardous  
waste disposal; federal environmental law.*

**Cesar Farell, Professor**

Dept of Civil and Mineral Engineering  
University of Minnesota  
St. Anthony Falls Hydraulic Laboratory  
Mississippi River at 3rd Ave. S.E.  
Minneapolis, MN 55414  
612-627-4598 612-627-4010  
FAX: 612-627-4609

*Flow effects on structures; wind engineering;  
turbulence; wave theory; theory of models;  
small-scale hydropower.*

**Conrad E. Firling, Professor**

Department of Biology  
University of Minnesota  
315 Life Science Building  
Duluth, MN 55812  
218-726-7270

*Acid stress; acid stress on reproductive  
hormones on fish; acid stress estradiol  
levels; blood chemistry and hematology of  
fish; aluminum toxicology on bone tissue.*

**George R. Foster, Professor and Head**

Department of Agricultural Engineering  
University of Minnesota  
1390 Eckles Avenue  
St. Paul, MN 55108  
612-625-7733  
E-MAIL: gfoster@ux.acs.umn.edu

*Soil erosion; agricultural hydrology;  
hydrologic and erosion modelling.*

**Efi Foufoula-Georgiou**, Associate Professor  
Civil and Mineral Engineering  
University of Minnesota  
500 Pillsbury Drive SE  
Minneapolis, MN 55455  
612-627-4595 612-626-0369  
FAX: 612-627-4609  
E-MAIL:

EFI@MYKONOS.SAFHL.UMN.EDU

*Space-time modeling of rainfall; frequency analysis of extreme events; geomorphology and hydrologic response; subsurface transport processes.*

**Calvin R. Fremling**, Professor of Biology  
Department of Biology  
Winona State University  
Pasteur Hall  
Winona, MN 55987  
507-452-5324

*River ecology; Hexagenia mayfly; fisheries; lake restoration; wetland restoration.*

**Sherilyn C. Fritz**, Research Associate  
Limnological Research Center  
University of Minnesota  
220 Pillsbury Hall  
Minneapolis, MN 55455  
612-624-5828 612-624-7005  
FAX: 612-625-3819  
E-MAIL: FVM6188@UMNACVX  
*Paleolimnology; diatom ecology; saline lakes; reconstruction of trophic state, lake level change and acidification history.*

**Jerry E. Fruin**, Associate Professor  
Agricultural & Applied Economics  
University of Minnesota  
316 Classroom Office Building  
St. Paul, MN 55108  
612-625-8720

*User charges; transportation - barging*

**Christie J. Geankoplis**, Professor  
Chemical Engineering & Materials Science  
University of Minnesota  
253 Amundson Hall  
421 Washington Avenue SE  
Minneapolis, MN 55455  
612-625-1586

*Mass transfer in biological systems.*

**Luther P. Gerlach**, Professor of Anthropology  
Humphrey Institute of Public Affairs  
University of Minnesota  
215 Ford Hall  
Minneapolis, MN 55455  
612-625-3400

*Social-cultural factors in managing water resources; cooperation across territorial borders and cultural boundaries to manage natural resources on an ecosystems scale.*

**Philip J. Gersmehl**, Professor  
Department of Geography  
University of Minnesota  
414 Social Science  
Minneapolis, MN 55455  
612-625-0805

*Soil and landform geographic information systems.*

**Paul H. Glaser**, Research Associate  
Limnological Research Center  
University of Minnesota  
220 Pillsbury Hall  
Minneapolis, MN 55455  
612-624-8395 612-624-5828  
FAX: 612-624-3363

*Boreal peatlands; ecology*

**Florence K. Gleason**, Associate Professor  
Plant Biology  
University of Minnesota  
220 Bioscience Center  
St. Paul, MN 55108  
612-625-4275  
FAX: 612-625-5754  
E-MAIL: IQA6016@UMNACVX

*Algae.*

**Richard J. Goldstein**, Regents Professor and Head

Department of Mechanical Engineering  
University of Minnesota  
125 Mechanical Engineering  
111 Church Street SE  
Minneapolis, MN 55455  
612-625-5552  
FAX: 612-625-3434

*Heat transfer; thermodynamics; fluid mechanics.*

**Philip R. Goodrich**, Associate Professor

Agricultural Engineering  
University of Minnesota  
305 AGEN  
1390 Eckles Avenue  
St. Paul, MN 55108  
612-625-4215  
FAX: 612-624-3005

E-MAIL: gqn6051@ux.acs.umn.edu

*Waste management in rural landscapes; expert systems applied to environmental problems.*

**Eville Gorham**, Regents' Professor

Ecology Evolution and Behavior  
University of Minnesota  
208 Zoology  
318 Church Street SE  
Minneapolis, MN 55455  
612-625-4407  
FAX: 612-625-4490

*Limnology; ecology; biogeochemistry; wetland ecology; effects of acid deposition.*

**Sagar M. Goyal**

Associate Professor of Virology  
Veterinary Diagnostic Investigation  
University of Minnesota  
1943 Carter Avenue  
St. Paul, MN 55108  
612-625-2714  
FAX: 612-624-8707

*Fate and transport of viruses in groundwater and soil; viral pollution of marine environment; methods for detection of viruses in water; impact of drug-resistant bacteria in the environment; health effects of water pollution.*

**Douglas A. Greenley**, Professor

Department of Economics  
Moorhead State University  
Moorhead, MN 56560  
218-236-4031

*Water quality; economics of water quality; recreational use as pertains to water.*

**Priscilla Grew**

Director of MGS and Professor  
Department of Geology & Geophysics  
University of Minnesota  
Minnesota Geological Survey  
2642 University Ave.  
St. Paul, MN 55114  
612-627-4780  
FAX: 612-627-4778

*Groundwater; hydrogeology.*

**David F. Grigal**, Professor

Department of Soil Science  
University of Minnesota  
439 Borlaug Hall  
St. Paul, MN 55108  
612-625-4232  
FAX: 612-625-2208  
E-MAIL: drdave@UMNACCA.BITNET

*Forest soils; forest water use; impact of forested watersheds on aquatic systems; peatlands.*

**John S. Gulliver**, Assistant Professor  
Civil and Mineral Engineering  
University of Minnesota  
122 CME Building  
Minneapolis, MN 55455  
612-627-4600  
FAX: 612-627-4609

*Environmental hydraulics; hydropower; intake  
vortices (hydraulic structures); air-water  
mass transfer; ice hydraulics.*

**Ralph W. Gundersen**, Professor  
Biological Sciences  
St. Cloud State University  
BH 208  
St. Cloud, MN 56301  
612-255-4136 612-255-2036 (Dep't)

*Taxonomy; behavior of aquatic insects with  
emphasis on standing water.*

**Jeffrey L. Gunderson**, Associate Professor &  
Area Extension Agent  
Sea Grant Extension  
University of Minnesota  
208 Washburn Hall  
Duluth, MN 55812  
218-726-8715  
FAX: 218-726-6556

*Great Lakes Fishery; seafood utilization;  
sport/commercial fishing; aquaculture.*

**Satish Chander Gupta**, Professor  
Department of Soil Science  
University of Minnesota  
439 Borlaug Hall  
1991 Upper Buford Circle  
St. Paul, MN 55108  
612-625-1241  
FAX: 612-625-2208

*Water and contaminant transport through soil;  
hydrologic processes at the soil surface;  
soil erosion; soil water relations; surface  
and groundwater quality.*

**David Gustafson**,  
Agricultural Engineering  
University of Minnesota  
AGEN 311  
1390 Eckles Avenue  
St. Paul, MN 55108  
612-625-6711

*Design.*

**Richard Hanson**, Professor of Microbiology  
Gray Freshwater Biological Institute  
University of Minnesota  
P.O. Box 100  
Navarre, MN 55392  
612-471-8476  
FAX: 612-471-9070  
*Microbial ecology; microbial physiology;  
global methane balances; methane utilizing  
bacteria (physiology).*

**Kenneth L. Harris**, Senior Scientist  
Minnesota Geological Survey  
University of Minnesota  
2642 University Avenue  
St. Paul, MN 55114  
612-627-4809  
FAX: 612-627-4778  
*Quaternary geology; land use; water use.*

**Jay T. Hatch**, Associate Professor  
General College  
University of Minnesota  
340 Appleby Hall  
128 Pleasant Street SE  
Minneapolis, MN 55455  
612-625-9346 612-624-3367  
*Fish ecology; early life history; reproduction;  
larval fish and zooplankton interactions.*

**Robert Henney**, Professor  
Department of Chemistry  
Mankato State University  
Mankato, MN 56001  
507-389-1718  
*Activated sludge wastewater treatment and  
control; lime softening of potable water.*



**Anne E. Hershey**, Associate Professor  
Department of Biology  
University of Minnesota  
321 Life Sciences  
Duluth, MN 55812  
218-726-8200  
FAX: 218-726-6360  
E-MAIL: RB13101@UMNDUL

*Stream ecology: grazer algal interactions, food limitation, grazer-grazer interactions.  
Benthic ecology: fish predation, nutrient limitation. Wetland Ecology: foodwebs.*

**Randall E. Hicks**, Assistant Professor  
Department of Biology  
University of Minnesota-Duluth  
10 University Drive  
Duluth, MN 55812  
218-726-8134

*Environmental microbiology (aquatic); organic geochemistry; biodegradation.*

**Gerry J.C. Hill**, Professor  
Department of Biology  
Carleton College  
Northfield, MN 55057  
507-663-4392

*Physiology of freshwater algae; chemical communication systems; aquatic biology; aquatic fungi.*

**John B. Holden Jr.**, Professor  
Department of Chemistry  
Mankato State University  
Box 40  
Mankato, MN 56001  
507-389-6454

*Analytical Chemistry; heavy metals; metal analysis; atomic absorption spectrophotometry.*

**Bobby J. Holder**  
Northwest Experimental Station  
University of Minnesota-Crookston  
Crookston, MN 56716  
218-281-6150 ex: 487  
FAX: 218-281-5223

*Water quality and pesticides.*

**Linda L. Holmstrand**, Associate Professor  
Department of Biology  
University of Minnesota-Duluth  
Duluth, MN 55812  
218-299-3947

*Aquatic ecology; ecology of bait leeches.*

**Charles S. Holt**, Professor  
Department of Biology  
Bemidji State University  
Coordinator - Aquatic Biology Program  
Bemidji, MN 56601  
218-755-2877

*Stream ecology; eutrophication; biotelemetry of fish; watershed studies.*

**Alan Hooper**, Professor  
Genetics and Cell Biology  
University of Minnesota  
250 Bioscience  
St. Paul, MN 55108  
612-624-4930  
FAX: 612-625-5754

*Microbial degradation of halogenated compounds; nitrification.*

**Alfred J. Hopwood**, Professor  
Department of Biological Sciences  
St. Cloud State University  
MS-229  
St. Cloud, MN 56301  
612-255-2059

*Limnology; lotic limnology, Mississippi River ecology, larval fish, early life history of fishes, aquatic invertebrates, hydropower.*

**Daniel J. Hornbach**, Associate Professor  
Department of Biology  
Macalester College  
1600 Grand Avenue  
St. Paul, MN 55105  
612-696-6101  
E-MAIL:

HORNBACH@MACALSTR.EDU

*Physiological ecology and life history evolution of freshwater molluscs, especially bivalves.*

**George E. Host**, Research Associate  
Natural Resources Research Institute  
University of Minnesota-Duluth  
5013 Miller Trunk Highway  
Duluth, MN 55811  
218-720-4264  
FAX: 218-720-4219  
E-MAIL: GHOST@UMNDUL

*Biostatistics, especially analysis of community data with multivariate methods; Geographic Information Systems; landuse; NPS impacts on streams.*

**Marcus Hoyer**, Scientist  
Dept of Civil and Mineral Engineering  
University of Minnesota  
Underground Space Center  
500 Pillsbury Drive SE  
St. Paul, MN 55455  
612-625-6853  
FAX: 612-624-0293

*Quaternary geology; geomorphology; engineering geology; hydrogeology; aquifer thermal energy storage.*

**Nancy Olga Jannik**, Associate Professor  
Department of Geology  
Winona State University  
Winona, MN 55987  
507-457-5267

*Interaction of groundwater and contaminants in Minnesota; hydrogeochemistry; use of radio- and stable isotopes to determine groundwater and contaminant movement; radioisotope dating of groundwater; water well siting and development; landfill siting.*

**Mark A. Jirsa**, Senior Scientist  
Minnesota Geological Survey  
University of Minnesota  
2642 University Ave.  
St. Paul, MN 55114  
612-627-4798

*Mapping of Paleozoic aquifers in 7-county metropolitan area; Twin Cities artesian basin stratigraphy.*

**Mark D. Johnson**, Associate Professor  
Department of Geology  
Gustavus Adolphus College  
St. Peter, MN 56082  
507-931-7442

*Glacial geology; surface and groundwater problems; sedimentology.*

**Carol A. Johnston**, GIS Administrator  
Natural Resources Research Institute  
University of Minnesota-Duluth  
5013 Miller Trunk Highway  
Duluth, MN 55811  
218-720-4269  
FAX: 218-720-4219

*Land/water interactions; GIS; erosion; non-point source pollution; trace gas emission from wetlands; global climate change; beaver ponds.*

**Roman Kanivetsky**  
Senior Scientist - Hydrogeologist  
Minnesota Geological Survey  
University of Minnesota  
2642 University Ave.  
St. Paul, MN 55114-1057  
612-627-4780

*Hydrodynamics; groundwater protection; hydrogeologic mapping; hydrogeochemistry; interantional hydrogeology; water resources management.*

**Anne R. Kapuscinski**, Assistant Professor  
Department of Fisheries & Wildlife  
University of Minnesota  
130 Hodson Hall  
St. Paul, MN 55108  
612-624-2720

*Aquaculture (especially salmon and trout) and genetics of fisheries resources; integration of aquaculture with natural resource management.*

**Kerry Kelts**, Professor/Director LRC  
Limnological Research Center  
University of Minnesota  
Pillsbury Hall  
Minneapolis, MN 55455  
612-624-0275 612-624-7005 (Sec)  
FAX: 612-625-3819  
E-MAIL: K.KELTS@OMNET

*Past record of environmental dynamics in lake sediments; stable isotope geochemistry of lake deposits; paleoclimate and paleohydrology.*

**John M. Killen**, Research Associate  
Civil and Mineral Engineering  
University of Minnesota  
St. Anthony Falls Hydraulic Laboratory  
Mississippi River at 3rd Ave. S.E.  
Minneapolis, MN 55414  
612-627-4597

*Polymer flows; cavitation noise; instrumentation; cavitation; fluid mechanics.*

**Steve Kleist**, Program Director  
Water Resources Technology  
Vermilion Community College  
1900 East Camp Street  
Ely, MN 55731  
218-365-3256

*Water quality; water pollution control; utility management; analytical testing; hydrology.*

**Andrew R. Klemmer**, Professor  
Department of Biology  
University of Minnesota  
305 Life Sciences  
Duluth, MN 55108  
218-726-8864

*Experimental limnology; physiological ecology of phytoplankton, plankton succession, distribution and depth regulation.*

**Keith M. Knutson**, Limnologist/Phycologist  
Department of Biological Sciences  
St. Cloud State University  
St. Cloud, MN 56301  
612-255-2194

*Water quality management; lake nutrient loading; phytoplankton ecology; river periphyton taxonomy; lake responses to nutrient inputs; reducing nutrient runoff; best management practices for nonpoint sources of nutrients.*

**Glenn Kreag**, Tourism/Recreation Extension Agent

Sea Grant Extension Program  
University of Minnesota-Duluth  
208 Washburn Hall  
Duluth, MN 55812  
218-726-8106  
FAX: 218-726-6556

*Tourism.*

**Maurice M. Kreevoy**, Professor  
Department of Chemistry  
University of Minnesota  
207 Pleasant Street SE  
Minneapolis, MN 55455  
612-624-2501  
FAX: 612-626-7541

*Transport and chemical reaction of ions in one-phase and multi-phase liquid systems with applications to water purification; theory of chemical reactivity.*

**Thomas H. Kuehn**, Professor  
Department of Mechanical Engineering  
University of Minnesota  
140 Mechanical Engineering  
Minneapolis, MN 55455-0111  
612-625-4520  
FAX: 612-625-6069

*Fluid mechanics; water analysis chemistry; law; useage for recreation.*

**Kerry Kelts**, Professor/Director LRC  
Limnological Research Center  
University of Minnesota  
Pillsbury Hall  
Minneapolis, MN 55455  
612-624-0275 612-624-7005 (Sec)  
FAX: 612-625-3819  
E-MAIL: K.KELTS@OMNET

*Past record of environmental dynamics in lake sediments; stable isotope geochemistry of lake deposits; paleoclimate and paleohydrology.*

**John M. Killen**, Research Associate  
Civil and Mineral Engineering  
University of Minnesota  
St. Anthony Falls Hydraulic Laboratory  
Mississippi River at 3rd Ave. S.E.  
Minneapolis, MN 55414  
612-627-4597

*Polymer flows; cavitation noise; instrumentation; cavitation; fluid mechanics.*

**Steve Kleist**, Program Director  
Water Resources Technology  
Vermilion Community College  
1900 East Camp Street  
Ely, MN 55731  
218-365-3256

*Water quality; water pollution control; utility management; analytical testing; hydrology.*

**Andrew R. Klemer**, Professor  
Department of Biology  
University of Minnesota  
305 Life Sciences  
Duluth, MN 55108  
218-726-8864

*Experimental limnology; physiological ecology of phytoplankton, plankton succession, distribution and depth regulation.*

**Keith M. Knutson**, Limnologist/Phycologist  
Department of Biological Sciences  
St. Cloud State University  
St. Cloud, MN 56301  
612-255-2194

*Water quality management; lake nutrient loading; phytoplankton ecology; river periphyton taxonomy; lake responses to nutrient inputs; reducing nutrient runoff; best management practices for nonpoint sources of nutrients.*

**Glenn Kreag**, Tourism/Recreation Extension Agent

Sea Grant Extension Program  
University of Minnesota-Duluth  
208 Washburn Hall  
Duluth, MN 55812  
218-726-8106  
FAX: 218-726-6556

*Tourism.*

**Maurice M. Kreevoy**, Professor.  
Department of Chemistry  
University of Minnesota  
207 Pleasant Street SE  
Minneapolis, MN 55455  
612-624-2501  
FAX: 612-626-7541

*Transport and chemical reaction of ions in one-phase and multi-phase liquid systems with applications to water purification; theory of chemical reactivity.*

**Thomas H. Kuehn**, Professor  
Department of Mechanical Engineering  
University of Minnesota  
140 Mechanical Engineering  
Minneapolis, MN 55455-0111  
612-625-4520  
FAX: 612-625-6069

*Fluid mechanics; water analysis chemistry; law; useage for recreation.*

**John A. Lamb**, Associate Professor  
Department of Soil Science  
University of Minnesota  
234 Soils  
St. Paul, MN 55108  
612-625-1772  
FAX: 612-625-2208

*Water quality; nutrient management; soil management; coordinator for Management Systems Evaluation Area.*

**Joseph J. Latterell**, Professor  
Department of Chemistry  
University of Minnesota-Morris  
Morris, MN 56267  
612-589-2211

*Trace metal movement in soil and availability to plants from sewage sludge applications; distribution of phosphorus in soil irrigated with wastewater effluent; assessment of lake improvement from diversion of septic tank effluent.*

**Jeanette H. Leete**, Senior Lecturer  
Department of Geology  
Macalester College  
1600 Grand Avenue  
St. Paul, MN 55105  
612-696-6448 (Mac) 612-296-0433 (DNR)  
FAX: 612-296-0445  
E-MAIL: Bitnet LEETE@MACALSTR  
*Work in ground water management includes groundwater pollution remediation and research involving surface water/ground water interactions; special interests include education of elementary and secondary science teachers.*

**Richard W. Lichty**, Professor  
Department of Economics  
University of Minnesota-Duluth  
SBE 174  
Duluth, MN 55812  
218-726-7219  
FAX: 218-726-6338

*Regional economics; input-output modeling; regional economic development; tourism and recreation; information systems.*

**Dennis Linden**, Associate Professor and Research Soil Scientist  
Department of Soil Science/USDA  
University of Minnesota  
170 Borlaug Hall  
St. Paul, MN 55108  
612-625-6798

*Infiltration; soil macropores and earthworms; soil physics; tillage.*

**Richard S. Lively**, Scientist  
Minnesota Geological Survey  
University of Minnesota  
2642 University Ave.  
St. Paul, MN 55114  
612-625-5369  
FAX: 612-624-6369  
E-MAIL: Lively@VX.ACSS.UMN.EDU  
*U-series isotope dating; studies of naturally occurring isotopes in ground water; indoor radon and the study of geological sources of radon.*

**Keith B. Lodge**, Research Associate  
Natural Resources Research Institute  
University of Minnesota-Duluth  
5013 Miller Trunk Highway  
Duluth, MN 55811  
218-720-4316 218-720-4337  
*Analysis of environmental matrices for dioxins, furans, and planar PCBs. Laboratory measurements of the physical properties of dioxin; properties of sediments relating to distribution of hydrophobic compounds between sediment and water.*

**Kenneth R. Lundberg**, Professor  
Department of Chemistry  
Bemidji State University  
Bemidji, MN 56601  
218-755-2962 218-755-2920  
*Water quality associated with wild rice culture.*

**William J. Mackellar, Professor**

Department of Chemistry  
Concordia College  
Moorhead, MN 56560  
612-299-3571

*Analytical methods development; environmental pollutant analysis; electroanalytical methods; chromatographic methods; water quality; chemical analysis.*

**Walter J. Maier, Professor**

Department of Civil & Mineral Engineering  
University of Minnesota  
CME Building  
Minneapolis, MN 55455  
612-625-3016 612-625-5522

*Microbiological aspects of wastewater treatment; decontamination of groundwater and soils; oxidation of toxic/hazardous organic wastes.*

**Wilbur R. Maki, Professor**

Agriculture & Applied Economics  
University of Minnesota  
248 Classroom Office Building  
St. Paul, MN 55108  
612-625-6237

*Ecological-economic modeling for representing water using and damaging sectors of the economy; natural resources development affected by and affecting water quality and use; recreational benefits of water quality management.*

**Gary L. Malzer, Professor**

Department of Soil Science  
University of Minnesota  
1991 Upper Buford Circle  
St. Paul, MN 55108  
612-625-6728  
FAX: 612-625-2208

*Soil fertility and chemistry; efficiency of fertilizer use; movement of fertilizers and water quality.*

**Frank B. Martin, Director**

Statistical Center  
University of Minnesota  
352 Classroom Office Building  
St. Paul, MN 55108  
612-625-4214

*Designing experiments; sample survey plans; regression analysis; statistical methods; application of statistical analysis methods.*

**Roger B. Martin, Professor & Chairman**

Landscape Architecture  
University of Minnesota  
205 North Hall  
2005 Buford Circle  
St. Paul, MN 55455  
612-625-8285

*Design of recreational facilities related to water (eg. water access facilities: boat access, marinas, fishing and swimming areas)*

**Charles P. Mason, Professor**

Department of Biology  
Gustavus Adolphus College  
St. Peter, MN 56082  
507-931-7324

*Physiological ecology of algae; Minnesota algae; cyanobacteria from Scytonema hofmanni; algal ecology and algal physiological ecology.*

**Charles L. Matsch, Professor**

Department of Geology  
University of Minnesota-Duluth  
215 Heller Hall  
Duluth, MN 55812  
218-726-7586

*Mapping of quaternary deposits; sedimentology of glacial deposits; glaciomarine sediments; pre-Pleistocene glaciations in Antarctica and U.S.; hydrogeology of glaciated terrains.*

**Bruce Maxwell**, Assistant Professor  
Agronomy and Plant Genetics  
University of Minnesota  
411 Borlaug Hall  
St. Paul, MN 55108  
612-625-8237

*Weed ecology; plant population modelling;  
plant competition and demographics.*

**David R. McConville**, Professor  
Department of Biology  
Saint Mary's College  
Terrace Heights  
Winona, MN 55987  
507-457-1542

*Hydrology; water quality; benthic organisms;  
fish populations; fish management; aquatic  
macrophytes; Mississippi river ecology and  
management; trout stream ecology; GIS;  
watershed assessment.*

**Michael E. McDonald**, Assistant Professor  
Chemical Processing Engineering  
University of Minnesota-Duluth  
231 Engineering Building  
10 University Drive  
Duluth, MN 55811  
218-726-6306

*Simulation modeling; toxic substances and  
hazardous waste management; water and  
wastewater treatment; environmental  
engineering; fisheries ecology.*

**Robert B. McMaster**, Associate Professor  
Department of Geography  
University of Minnesota  
414 Social Sciences Tower  
Minneapolis, MN 55455  
612-625-6080  
E-MAIL: mcmaster@atlas.socsci.umn  
*Spatial analysis and geographic information  
systems.*

**Donald C. McNaught**, Professor/Director  
Ecology, Evolution & Behavior/Sea Grant  
University of Minnesota  
Suite 302  
1518 Cleveland Avenue  
St. Paul, MN 55108  
612-625-2765 612-625-1263  
E-MAIL: OMNET:McNAUGHT  
*Ecology of zooplankton; limnology of Great  
Lakes; ecotoxicology.*

**Robert O. Megard**, Professor  
Ecology Evolution and Behavior  
University of Minnesota  
109 Zoology Building  
318 Church Street SE  
Minneapolis, MN 55455  
612-625-4610  
*Photosynthesis in planktonic algae; plankton  
ecology; hydroacoustics; underwater light.*

**Robert C. Melchior**, Professor  
Department of Geology  
Bemidji State University  
Bemidji, MN 56601  
218-755-2782  
*Stratigraphy; hydrogeology.*

**Gary N. Meyer**, Senior Scientist  
Minnesota Geological Survey  
University of Minnesota  
2642 University Ave.  
St. Paul, MN 55114  
612-627-4796  
*Subsurface stratigraphy of glacial sediments in  
the Twin Cities area and central and  
northern Minnesota.*

**J.A.E. Molina**, Professor  
Department of Soil Science  
University of Minnesota  
264 Borlaug Hall  
St. Paul, MN 55108  
612-625-6259  
*Carbon and nitrogen flow; computer  
simulation modeling; microbial biomass  
determination; simulation of C, N, and  
water dynamics in agroecosystems.*

**John F. Moncrief**, Associate Professor  
Department of Soil Science  
University of Minnesota  
162 Borlaug Hall  
St. Paul, MN 55108  
612-625-2771

*Affects of conservation tillage on groundwater and surface water; biological transfer of nitrogen and transport to groundwater and sediment; phosphorus losses to surface waters.*

**Paul H. Monson**  
Professor (Emeritus)  
Curator: Olga Lakela Herbarium  
Department of Biology  
University of Minnesota  
10 University Drive  
Duluth, MN 55812  
218-726-6542 218-726-7264

*Floristics of the Upper Midwest; emphasis on marsh and aquatic flowering plants.*

**Roger D. Moon**, Associate Professor  
Department of Entomology  
University of Minnesota  
219 Hodson Hall  
St. Paul, MN 55108  
612-624-2209  
FAX: 612-625-5299

*Population dynamics of mosquitoes, blackflies, and other insects. Simulation modeling of ecological systems and population management.*

**Glenn B. Morey**  
Associate Director & Professor  
Minnesota Geological Survey  
University of Minnesota  
2642 University Ave.  
St. Paul, MN 55114  
612-627-4780  
FAX: 612-627-4778

*Stratigraphy; sedimentology and natural resources of Minnesota and the Lake Superior region; geologic data bases.*

**John H. Mossler**, Scientist  
Minnesota Geological Survey  
University of Minnesota  
2642 University Ave.  
St. Paul, MN 55114  
612-627-4805

*Paleozoic rocks in southeastern Minnesota; stratigraphy and sedimentation.*

**Neal D. Mundahl**, Assistant Professor  
Department of Biology  
Winona State University  
Winona, MN 55987  
507-457-5695  
FAX: 507-457-5681

*Fish and benthic ecology; stream quality assessment; thermal biology of fish and aquatic invertebrates.*

**Robert C. Munter**, Assistant Professor  
Department of Soil Science  
University of Minnesota  
135 Crops Research Building  
St. Paul, MN 55108  
612-625-3101

*Director of the Research Analytical Laboratory which provides analytical services for University and public agency staff (inorganic and elemental analysis of water, sediment, plants, etc.)*

**Joan I. Nassauer**, Associate Professor  
Department of Horticultural Science & Landscape Architecture  
University of Minnesota  
305 Alderman Hall  
St. Paul, MN 55108  
612-624-7216

*Landscape perception; geographic information systems; regional planning; public preference; rural and coastal landscapes.*



**Lance M. Neckar**, Assistant Professor  
Landscape Architecture  
University of Minnesota  
432 Alderman Hall  
St. Paul, MN 55108  
612-624-3259

*Stormwater management and runoff; decorative  
uses of water in landscaping; aesthetics;  
water quality and design/planning issues.*

**Charles L. Nelson**, Professor  
Department of Earth Sciences  
St. Cloud State University  
720 4th Avenue South  
St. Cloud, MN 56301-4498  
612-255-4246

*Surface hydrology; geohydrology; physical  
limnology*

**Raymond M. Newman**, Assistant Professor  
Fisheries and Wildlife  
University of Minnesota  
1980 Folwell Avenue  
St. Paul, MN 55108  
612-625-5704  
E-MAIL: [rmn@finsandfur.fw.umn.edu](mailto:rmn@finsandfur.fw.umn.edu)

*Aquatic ecology and trophic relations  
especially trout streams, plant-herbivore  
interactions, biological control of  
macrophytes.*

**John L. Nieber**, Associate Professor  
Department of Agricultural Engineering  
University of Minnesota  
1390 Eckles Avenue  
St. Paul, MN 55108  
612-625-6724  
FAX: 612-624-3005

*Hydrologic modeling; groundwater quality;  
flow in porous media; drainage of  
agricultural lands.*

**Dennis N. Nielsen**  
Dean & Professor of Geology  
College of Science and Engineering  
Winona State University  
Pasteur Hall  
Winona, MN 55987  
507-457-5014  
FAX: 507-457-5681  
*Sedimentology; hydrogeology.*

**Gerald L. Niemi**, Deputy Director  
Natural Resources Research Institute  
University of Minnesota-Duluth  
5018 Miller Trunk Highway  
Duluth, MN 55811  
218-720-4270  
FAX: 218-720-4219  
*Ecology of streams and rivers; statistics;  
information systems; non-point source  
pollution; wetlands; experimental systems.*

**David M. Noetzel**, Extension Entomologist  
Department of Entomology  
University of Minnesota  
219 Hodson Hall  
1980 Folwell Avenue  
St. Paul, MN 55108  
612-624-9272  
FAX: 612-625-5299  
*Work with insecticides and biological control  
within an IPM framework; assessment of  
insecticide risk.*

**Bruce A. Nord**, Associate Professor  
Department of Sociology and Anthropology  
University of Minnesota-Morris  
101 Camden  
Morris, MN 55267  
612-589-2211  
*Water policy in U.S.; water policy and  
development in the third world.*

**Douglas C. Nord**, Associate Professor & Director

Department of International Studies  
University of Minnesota  
208 Cina Hall  
Duluth, MN 55812  
218-726-6220

*Water resources of the Great Lakes; Interbasin transfer of water; diversion of Canadian water resources; Ontario-Minnesota boundary waters disputes.*

**Gary W. Oehlert**, Assistant Professor

Department of Applied Statistics  
University of Minnesota  
353 Classroom Office Building  
1994 Buford Avenue  
St. Paul, MN 55108  
612-625-4758

E-MAIL: gary@umnstat.stat.umn.ude

*Methods for trend analysis of geophysical time series (e.g. acid rain and stratospheric ozone).*

**Peter J. Olin**, Professor and Director of MLA

Department of Horticultural Science & Landscape Architecture  
Box 39  
Minnesota Landscape Arboretum  
3675 Arboretum Drive  
University of Minnesota  
Chanhassen, MN 55317  
612-443-2521

**Alan Olness**, Soil Scientist

USDA ARS NCSCRL  
University of Minnesota  
North Iowa Avenue  
Morris, MN 56267  
612-589-3411 ex 31  
FAX: 612-589-3787

*Soil and water chemistry with emphasis of nitrates and phosphates; factors affecting plant nutrition; chemical analysis of pesticides.*

**Dale W. Olsen**, Professor & Coordinator

Urban & Regional Studies Program  
University of Minnesota-Duluth  
Political Science Department  
304 Cina Hall  
Duluth, MN 55812  
218-726-8164

**Charles A. Onstad**

Location Coordinator - Research Leader  
North Central Soil Conservation Laboratory  
University of Minnesota  
North Iowa Avenue  
Morris, MN 56267  
612-589-3411  
FAX: 612-589-3787

*Watershed hydrology; conservation tillage; erosion mechanics.*

**Kazem Eradat Oskoui**, Agricultural Engineer

USDA-ARS-MWA  
University of Minnesota-Morris  
North Central Soil Conservation Laboratory  
North Iowa Avenue  
Morris, MN 56267  
612-589-3411  
FAX: 612-589-3787  
E-MAIL: Bitnet: USDA\_OSK@UMNMOR

*Modeling of the effects of mechanization on soil water properties; modeling the effects of soil water on mechanization demands and management strategies.*

**Barbara M. Palen**, Scientist

Minnesota Geological survey  
University of Minnesota  
2642 University Ave.  
St. Paul, MN 55114  
612-627-4784

*Groundwater geology of Minnesota; relationships between climate and groundwater resources.*

**Christopher Paola**, Associate Professor  
Department of Geology & Geophysics  
University of Minnesota  
108 Pillsbury Hall  
Minneapolis, MN 55455  
612-625-8025

*Sediment transport; river mechanics; braided rivers; gravel; sedimentary basins.*

**Gary Parker**, Professor  
Department of Civil & Mineral Engineering  
University of Minnesota  
St. Anthony Falls Hydraulic Laboratory  
Mississippi River at 3rd Ave. S.E.  
Minneapolis, MN 55455  
612-627-4596 612-625-2883

*River mechanics and sediment transport.*

**Charles G. Parson**, Professor  
Department of Geography  
Bemidji State University  
1500 Birchmont Drive NE  
Bemidji, MN 56601  
218-755-2805/2878 (H) 218-751-8876  
FAX: 218-755-4048  
E-MAIL: Bitnet: Charlie@MSUS1

*Fluvial geomorphology; survey research; geographic information systems in water resource planning; fluvial geomorphology; GIS planning, instruction, public speaking, workshop coordination, cartography.*

**John Pastor**, Research Associate  
Natural Resources Research Institute  
University of Minnesota  
Duluth, MN 55811  
218-720-4271

*Forest and wetland ecology; effects of climate change.*

**Suhas V. Patankar**, Professor  
Department of Mechanical Engineering  
University of Minnesota  
125 Mechanical Engineering  
111 Church Street SE  
Minneapolis, MN 55455  
612-625-6302

*Computational solutions of fluid flow, heat transfer, and turbulence.*

**Harold Pellett**, Professor  
Minnesota Landscape Arboretum  
University of Minnesota  
3675 Arboretum Drive  
Chanhassen, MN 55317  
612-443-2460

*Tolerance of landscape plants to water stress.*

**James Perry**, Associate Professor  
Department of Forest Resources  
University of Minnesota  
1530 North Cleveland  
St. Paul, MN 55108  
612-624-9796 612-624-4621  
FAX: 612-625-5212

*Ecological approaches to water quality management; uses of GIS technology in water resources; effects of global change on water quality; water quality policy; water resources education; water resources decision making in developing countries.*

**Jerrold M. Peterson**, Professor  
Department of Economics  
University of Minnesota  
Duluth, MN 55812  
218-726-7256

*Evaluating water resources at state and national level relative to water quality and costs of environmental damage.*

**Hans-Olaf Pfannkuch**, Professor  
Department of Geology & Geophysics  
University of Minnesota  
110 Pillsbury Hall  
Minneapolis, MN 55455  
612-624-1620

*Contaminant hydrology; hazardous wastes and hydrocarbons; transport phenomena in porous media; groundwater vulnerability and risk assessment; wellhead protection.*

**David G. Pitt**, Professor  
Landscape Architecture  
University of Minnesota  
212 North Hall  
2005 Buford Circle  
St. Paul, MN 55108  
612-625-7099

*Environmental perception and simulation, natural resources policy, video image capture technology, landuse planning and management, landscape management.*

**Donald P. Poe**, Associate Professor  
Department of Chemistry  
University of Minnesota  
134 Chem  
Duluth, MN 55812  
218-726-7217  
E-MAIL: DPOE @ UMNDUL (bitnet)

*Chromatographic theory, analysis of environmental samples for chloro-organics.*

**Philip W. Porter**, Professor  
Department of Geography  
University of Minnesota  
414 Social Science  
Minneapolis, MN 55455  
612-625-4085

*Energy and water balances; agricultural climatology of East Africa; photosynthesis.*

**J. David Prince**, Professor of Law  
William Mitchell College of Law  
875 Summit Ave.  
St. Paul, MN 55105  
612-227-9171 612-290-6364

*Natural resource and environmental law; water research and water quality management.*

**David Y. Pui**, Associate Professor  
Department of Mechanical Engineering  
University of Minnesota  
125 Mechanical Engineering  
Minneapolis, MN 55455  
612-625-2537

*Particulates; filtration.*

**Henry W. Quade**, Professor & Director  
Department of Biology  
Water Resources Center  
Mankato State University  
Box 34  
Mankato, MN 56001  
507-389-5492

*Regional limnology, wetland ecology, and lake eutrophication in south-central Minnesota; river continuum theory in relation to agricultural drainage systems; agricultural impacts on water quality; impacts of small hydroelectric dams; county water planning.*

**Lloyd P. Queen**, Research Associate  
Department of Forest Resources  
University of Minnesota  
220C Green Hall  
St. Paul, MN 55108  
612-624-9271  
FAX: 612-625-5212

*Geographic information systems; remote sensing; spatial statistics; hydrogeology; vulnerability mapping.*

**Raymond L. Raab**, Professor  
Department of Economics  
University of Minnesota  
Duluth, MN 55812  
218-726-8508

*Water and recreation economics; fisheries economics; tourism.*

**Gyles W. Randall**, Professor and Soil Scientist  
Southern Experiment Station  
University of Minnesota  
Waseca, MN 56093  
507-835-3620

*Nutrient and pesticide movement through the  
rooting profile as influenced by soil and  
crop management.*

**George R. Rapp**, Professor  
Archaeometry Lab  
University of Minnesota  
10 University Drive  
Duluth, MN 55812  
218-726-7629  
FAX: 218-726-6556  
E-MAIL: BITNET: GRAPP@UMNDUL

*Environmental geochemistry; sediment  
characterization.*

**George W. Rehm**  
Extension Soil Scientist & Professor  
Department of Soil Science  
University of Minnesota  
439 Borlaug Hall  
St. Paul, MN 55108  
612-625-6210

*Soil fertility; plant nutrition; fertilizer  
management; nitrate and groundwater  
quality.*

**Donald. C. Reicosky**  
Soil Scientist & Adjunct Professor  
USDA-ARS  
University of Minnesota  
North Iowa Avenue  
Morris, MN 56267  
612-589-3411

*Measurement of evapotranspiration and  
photosynthesis water use efficiency;  
irrigation; plant-water relations.*

**Carl Richards**, Research Associate  
Natural Resources Research Institute  
University of Minnesota  
5013 Miller Trunk Highway  
Duluth, MN 55811  
218-720-4332  
FAX: 218-720-4219

*Stream ecology; salmonid biology;  
aquaculture; aquatic ecology; NPS  
impacts.*

**Pierre C. Robert**, Assistant Professor  
Department of Soil Science  
University of Minnesota  
1991 Upper Buford Circle  
St. Paul, MN 55108  
612-625-3125  
FAX: 612-625-2208

*Soil inventory; soil information systems;  
soilscape management for profitable and  
sustainable agriculture and for  
environmental protection.*

**Marilynne K. Roberts**  
Associate Professor of Law  
Hamline University Law School  
1536 Hewitt Ave.  
St. Paul, MN 55104  
612-641-2123

*Legal regulations of aquatic systems; acid  
rain; water quality as opposed to water  
quantity; environmental law resources.*

**Robert A. Robinson**, Professor  
Clinical and Population Sciences  
University of Minnesota  
428 Veterinarian Teaching Hospital  
St. Paul, MN 55108  
612-625-7260

*Veterinary and human health effects related to  
water ingestion and contact.*

**Carl Rosen**, Associate Professor  
Department of Soil Science  
University of Minnesota  
St. Paul, MN 55108  
612-625-8114  
FAX: 612-625-2208

*Nitrogen use and nitrate movement during irrigated potato production; land application of incinerator ash.*

**C. Ford Runge**, Associate Professor  
Agricultural & Applied Economics  
University of Minnesota  
332 Classroom Office Building  
St. Paul, MN 55108  
612-625-9208

*Agricultural policy; soil and water conservation; land use; natural resource economics.*

**Michael P. Russelle**  
Soil Scientist/Adjunct Associate Professor  
USDA-ARS/Soil Science  
University of Minnesota  
439 Borlaug Hall  
St. Paul, MN 55108  
612-625-8145  
FAX: 612-625-2208

*Role of forages in the nitrogen cycle; use of deeply-rooted perennial forages to reduce nitrate leaching losses; role of animal manure in the nitrogen cycle; fate of symbiotically-fixed nitrogen in agroecosystems.*

**Kenneth Salzberg**, Associate Professor  
School of Law  
Hamline University  
1536 Hewitt Avenue  
St. Paul, MN 55104  
612-641-2354

*Minnesota Water Law; U.S. Water Law; Environmental Law.*

**Chester Sautter**, Associate Professor  
Department of Physics  
Concordia College  
Moorhead, MN  
218-299-3389  
FAX: 218-299-3947

*General education; environmental studies; water quality.*

**Mary E. Savina**, Associate Professor  
Department of Geology  
Carleton College  
One North College Street  
Northfield, MN 55454  
507-663-4404  
E-MAIL: MSAVINA@CARLETON.EDU

*Geomorphology and quaternary geology; glacial geology of Minnesota; archeological geology (Quaternary geology) of Greece; surface-water hydrology and sedimentology.*

**Mark W. Seeley**  
Professor/Extension Climatologist  
Department of Soil Science  
University of Minnesota  
RM S335 Soils Building  
St. Paul, MN 55108  
612-625-4724

*Climatology and meteorology with emphasis on agricultural applications; measurement systems and network density requirements.*

**Michael Semmens**, Professor  
Department of Civil & Mineral Engineering  
University of Minnesota  
122 Civil & Mineral Engineering  
Minneapolis, MN 55455  
612-625-9857

*Physico-chemical processes for treatment of water and wastewater; ion-exchange and membrane technologies for removal and recovery of heavy metals and other toxic wastes.*

**Dale R. Setterholm**, Geologist  
Minnesota Geological Survey  
University of Minnesota  
2642 University Ave.  
St. Paul, MN 55114  
612-627-4786 612-627-4780

*Borehole geophysics; aquifer sensitivity;  
waterwell technology.*

**William E. Seyfried**, Professor  
Department of Geology and Geophysics  
University of Minnesota  
110 Pillsbury Hall  
310 Pillsbury Drive  
Minneapolis, MN 55455  
612-624-0340

*Fluid-mineral equilibria in aqueous  
geochemical systems.*

**Joseph Shapiro**, Professor  
Limnological Research Center  
University of Minnesota  
Pillsbury Hall  
310 Pillsbury Drive SE  
Minneapolis, MN 55455  
612-624-0596  
FAX: 612-625-3819

*Lake management and restoration; blue-green  
algae.*

**Clement F. Shearer**, Professor of Geology  
Department of Geology  
Carleton College  
One North College Street  
Northfield, MN 55057  
507-663-5441  
E-MAIL: CFSHEARE@CARLETON.EDU

*Fluvial geomorphology; geology and public  
policy; geological hazards reduction.*

**George W. Shurr**, Professor and Chairman  
Department of Earth Sciences  
St. Cloud State University  
St. Cloud, MN 56301  
612-255-2009

*Cretaceous sedimentary rocks as aquifers.*

**Terrence W. Simon**, Professor  
Department of Mechanical Engineering  
University of Minnesota  
125 Mechanical Engineering  
111 Church Street SE  
Minneapolis, MN 55455  
612-625-5831  
FAX: 624-1398

*Turbulent flow; boundary layer transition;  
diffusion of passive scalars (Heat and  
Mass).*

**Rexford D. Singer**, Associate Professor  
Environmental and Occupational Health  
University of Minnesota  
School of Public Health  
Box 197 Mayo Memorial Building  
Minneapolis, MN 55455  
612-626-1494 612-626-0900  
FAX: 612-626-6931

*Health effects and control of contaminants in  
public and private drinking water supplies;  
water well construction techniques and  
requirements; factors that influence  
groundwater quality.*

**Richard H. Skaggs**, Professor  
Department of Geography  
University of Minnesota  
414 Social Science  
Minneapolis, MN 55455  
612-625-6643 612-625-6080  
E-MAIL: EQJ6054@UMNACVX.BITNET  
*Climatology, especially fluctuations of climate  
during the instrumental period.*

**James A. Skurla**, Director  
Business Development Specialist  
University of Minnesota  
150 School of Business & Economics  
Duluth, MN 55812  
218-726-8542  
*Benefit cost analysis; public policy; statistics;  
resource management and allocation.*

**Charles C.S. Song**, Professor  
Department of Civil & Mineral Engineering  
University of Minnesota  
St. Anthony Falls Hydraulic Laboratory  
Minneapolis, MN 55414  
612-627-4599  
FAX: 612-627-4609

*Computational hydrodynamics and  
mathematical modeling; hydraulic  
transients and fluvial hydraulics.*

**Peter L. Sorenson**, Assistant Professor  
Department of Fisheries and Wildlife  
University of Minnesota  
200 Hodson Hall  
1980 Folwell Avenue  
St. Paul, MN 55108  
612-624-4997

*Fish physiology; behavior and reproductive  
biology; chemoreception in aquatic  
animals.*

**Leonard G. Soroka**, Professor  
Department of Earth Sciences  
St. Cloud State University  
St. Cloud, MN 56301  
612-255-3420  
FAX: 612-255-4262

*Algae; lake sedimentation; freshwater  
carbonates; stromatolites; science  
education.*

**David L. Southwick**, Assistant Director  
Minnesota Geological Survey  
University of Minnesota  
2642 University Avenue  
St. Paul, MN 55114  
612-627-4780

*Management of geological mapping projects in  
all parts of Minnesota; direct research on  
bedrock structural geology; implications of  
bedrock structure for groundwater flow;  
public education.*

**George R. Spangler**, Professor  
Department of Fisheries and Wildlife  
University of Minnesota  
200 Hodson Hall  
1980 Folwell Avenue  
St. Paul, MN 55108  
612-624-9229  
FAX: 612-625-5299  
*Fish population dynamics; fisheries  
management; predator-prey relationships;  
simulation modelling.*

**Steven A. Spigarelli**, Director  
Center for Environmental Studies  
Bemidji State University  
1500 Birchmont Drive NE  
Bemidji, MN 56601-2699  
218-755-2910 218-755-4048  
*Peat utilization; ecotoxicology; thermal  
ecology; fish behavior.*

**Eduard J. Stadelmann**, Professor  
Department of Horticultural Science  
University of Minnesota  
228 Alderman Hall  
1970 Folwell Avenue  
St. Paul, MN 55108  
612-624-3267  
FAX: 612-624-4941  
*Water stress on plants. Effect of water stress  
on the plant cell and protoplasm.*

**Heinz Stefan**, Professor and Associate Director  
Dept of Civil and Mineral Engineering  
University of Minnesota  
St. Anthony Falls Hydraulics Lab  
Mississippi River at 3rd Ave. S.E.  
Minneapolis, MN 55414  
612-627-4585  
FAX: 612-627-4607  
*Environmental hydraulics; water quality  
modeling; lake and reservoir  
hydrodynamics.*



**Donald N. Steinnes, Professor**

Department of Economics  
University of Minnesota  
173 SBE  
Duluth, MN 55812  
218-726-8243

*Headwaters drawdown policy; non-market valuation methods; economic value of sport fishing.*

**Otto D.L. Strack, Professor**

Department of Civil & Mineral Engineering  
University of Minnesota  
112 CME  
500 Pillsbury Drive SE  
Minneapolis, MN 55455  
612-625-3009 612-625-5525

*Analytical groundwater modeling; groundwater model development; contaminant transport.*

**Paul J. Strykowski, Assistant Professor**

Mechanical Engineering  
University of Minnesota  
125 Mechanical Engineering  
111 Church Street SE  
Minneapolis, MN 55455  
612-626-2008  
FAX: 612-624-1398  
E-MAIL: pstry@umnacux.bitnet

*Free-shear flow stability and control; turbulence modification in wakes and jets; global instabilities in incompressible fluids.*

**Deborah Swackhamer, Assistant Professor**

School of Public Health  
University of Minnesota  
1260 Mayo Building  
Box 197  
Minneapolis, MN 55455  
612-626-0435  
FAX: 612-626-6931

*Fate and transport of hydrophobic organic contaminants; fate of pesticides; environmental analytical chemistry.*

**Robert D. Sykes, Associate Professor**

Department of Landscape Architecture  
University of Minnesota  
212 North Hall  
110 Architecture  
St. Paul, MN 55455  
612-624-7808

*The relationship between land development and stormwater management and non-point source water pollution issues; special interest in local development controls and standards for housing in relation to these issues.*

**Steven J. Taff**

Associate Professor/Extension Economist  
Agricultural & Applied Economics  
University of Minnesota  
337 Classroom Office Building  
St. Paul, MN 55108  
612-625-3103  
FAX: 612-625-6245

*Economics of water resources; limited property rights transfer; agricultural and natural resource policy analysis.*

**Phillip J. Tichenor, Professor of Journalism**

Mass Communication and Rural Sociology  
University of Minnesota  
90 Classroom Office Building  
St. Paul, MN 55108  
FAX: 612-625-7261

**G. David Tilman, Professor**

Ecology Evolution and Behavior  
University of Minnesota  
326 Zoology Building  
318 Church Street SE  
Minneapolis, MN 55455  
612-625-6927  
FAX: 612-625-4490  
E-MAIL: tilman@umnacca

*Nutrient competition among algae; mathematical theory of consumer-resource interactions.*

**Robert Tipping**, Assistant Scientist  
Minnesota Geological Survey  
University of Minnesota  
2642 University Avenue  
St. Paul, MN 55114  
612-646-4780

*Water well database; groundwater chemistry;  
groundwater flow modeling.*

**Graham A. Tobin**, Associate Professor  
Department of Geography  
University of Minnesota  
10 University Drive  
Duluth, MN 55812  
218-726-8163  
E-MAIL: BITNET GTOBIN@UMNDUL

*Flood hazards; wetland environments;  
groundwater quality.*

**W. A. Toscano Jr.**  
Associate Professor  
Environmental Health/Toxicology Program  
University of Minnesota  
Box 197 UMHC  
Minneapolis, MN 55455  
612-626-0184  
FAX: 612-626-6931

*Molecular toxicology.*

**Patrick T. Trihey**  
Chairman/Director of Water Testing Lab  
Department of Biology  
Bemidji State University  
Bemidji, MN 56601-2699  
218-755-2920

*Nutrient budgets and eutrophication.*

**Nels Troelstrup Jr.**, Research Specialist  
Department of Forest Resources  
University of Minnesota  
115 Green Hall  
1530 North Cleveland Avenue  
St. Paul, MN 55108  
612-625-0266  
FAX: 612-625-5212

*My research interests include ecological  
analyses of spatial and temporal patterns  
of water quality and evaluating the effects  
of watershed management on aquatic  
communities.*

**James C. Underhill**  
Professor/Curator of Fishes  
Ecology Evolution and Behavior  
University of Minnesota  
80 Bell Museum of Natural History  
Minneapolis, MN 55455  
612-624-3367

*Aquatic biology; fish ecology; fish systematics;  
zoogeography.*

**James B. Van Alstine**, Associate Professor  
Department of Geology  
University of Minnesota  
Science and Math Division  
Morris, MN 56267  
612-589-2211 ex: 6313

*Paleontology; sedimentology; groundwater  
contamination; water management  
planning.*

**Gerald L. Van Amburg**  
Professor and Chairman  
Department of Biology  
Concordia College  
Box 358  
Moorhead, MN 56562  
218-299-3794  
FAX: 218-299-3947

*Structure and function of wetlands; nutrient  
cycling; primary productivity.*

**E.S. (Sandy) Verry**

Principal Forest Hydrologist  
North Central Forest Experiment Station  
USDA Forest Service  
Adjunct Assistant Professor  
1831 Highway 169 East  
University of Minnesota  
Grand Rapids MN 55744  
218-326-8571  
FAX: 218-326-4128

*Watershed management, peatland hydrology,  
precipitation chemistry, forest hydrology,  
lake chemistry.*

**Richard L. Voight Jr., Research Fellow**

St. Anthony Falls Hydraulic Laboratory  
University of Minnesota  
Mississippi River at 3rd Avenue SE  
Minneapolis, MN 55455  
612-627-4601

*Primarily involved in hydraulics.*

**Ward B. Voorhees**

Soil Scientist & Research Leader  
North Central Soil Conservation Laboratory  
University of Minnesota  
North Iowa Avenue  
Morris, MN 56267  
612-589-3411  
FAX: 612-589-3787

*Effects of soil compaction and tillage on plant  
growth, erosion, and energy.*

**Lawrence P. Wackett, Assistant Professor**

Department of Biochemistry  
University of Minnesota  
Gray Freshwater Biological Institute  
P.O. Box 100  
Navarre, MN 55392  
612-471-9493  
FAX: 612-471-9070

*Fate of organohalides in aquatic and  
terrestrial environments; mechanisms of  
pollutant detoxification; environmental  
microbiology and biochemistry.*

**Gary E. Wagenbach, Professor**

Department of Biology  
Carleton College  
Northfield, MN 55057  
507-663-4390  
FAX: 507-663-4204

*Biology of macroinvertebrates.*

**Kendall B. Wallace, Associate Professor**

Department of Pharmacology  
University of Minnesota  
School of Medicine  
Duluth, MN 55812  
218-726-8512

*Biochemical mechanisms of toxicity.*

**Thomas F. Waters, Professor**

Department of Fisheries & Wildlife  
University of Minnesota  
120 Hodson Hall  
1980 Folwell Avenue  
St. Paul, MN 55108  
612-624-7430

*Ecology of invertebrates and trout in streams;  
fisheries management; ecology of streams  
and rivers.*

**Sanford Weisberg, Professor**

Department of Applied Statistics  
University of Minnesota  
352 Classroom Office Building  
St. Paul, MN 55108  
612-625-8777  
FAX: 612-624-8868

*Statistical models for fish growth and fisheries  
management.*

**Joseph M. Wetzel, Assistant Director**

St. Anthony Falls Hydraulic Laboratory  
University of Minnesota  
Mississippi River at 3rd Avenue SE  
Minneapolis, MN 55414  
612-627-4584

*Fluid mechanics; hydraulic structures; pumps;  
intakes.*

**Donald B. White**, Professor  
Department of Horticultural Science  
University of Minnesota  
456 Alderman Hall  
St. Paul, MN 55108  
612-624-9206

*Landscape and turf management; waste composting; sludge application; water irrigation; herbicides.*

**Melbourne C. Whiteside**, Professor  
Department of Biology  
University of Minnesota  
Duluth, MN 55812  
612-726-8123  
FAX: 218-726-6360

*Zooplankton community structure; zooplankton/fish interactions.*

**Steven F. Williams**, Professor  
Department of Biological Sciences  
St. Cloud State University  
720 4th Avenue S  
St. Cloud, MN 56301  
612-255-4255

*Distribution and abundance of fishes.*

**Herbert. E. Wright**, Regent's Professor  
Geology & Geophysics  
University of Minnesota  
221 Pillsbury Hall  
Minneapolis, MN 55455  
612-624-5215  
FAX: 612-625-3819

*Quaternary paleoecology, paleolimnology, paleoclimatology, and glacial geology.*

**Jerry A. Wright**  
Extension Agricultural Engineer  
Department of Agricultural Engineering  
University of Minnesota  
West Central Experiment Station  
Morris, MN 56267  
612-589-1711  
FAX: 612-589-2608

*Irrigation systems and water management practices; field evaluations.*

**Donald L. Wyse**, Professor  
Agronomy and Plant Genetics  
University of Minnesota  
1991 Buford Circle  
St. Paul, MN 55108  
612-625-7064

*Perennial weed control, alternative methods of weed control, herbicide resistant crops.*

**Robert A. Young**, Agricultural Engineer  
USDA-ARS-MWA  
University of Minnesota  
N. Central Soil Conservation Research Lab  
North Iowa Avenue  
St. Paul, MN 55108  
612-589-3411  
FAX: 612-589-3787

*Research in the field of soil and water conservation with an emphasis on the mechanics of erosion and on the influence of agricultural practices on water quality; modeling watershed processes.*

**James Zandlo**, State Climatologist  
Department of Soil Sciences  
University of Minnesota  
S 325 Borlaug Hall  
St. Paul, MN 55108  
612-296-4214

*Climatology; cartography and mapping.*

**James A. Zischke**, Professor  
Department of Biology  
St. Olaf College  
Northfield, MN 55057  
507-663-3397

*Stream ecology; water pollution effects on benthic invertebrates.*

## INDEX BY RESEARCH INTERESTS

### ACID RAIN

E. Calvin Alexander Jr.  
Richard Axler  
Paul R. Bloom  
Patrick L. Brezonik  
Fu-Hsian Chang  
Duane Dahlberg  
Naomi Detenbeck  
William L. Downing  
Daniel R. Engstrom  
Conrad E. Firling  
Sherilyn C. Fritz  
Eville Gorham  
David F. Grigal  
Michael E. McDonald  
James Perry  
George R. Rapp  
Marilynne K. Roberts  
Mark W. Seeley  
E.S. (Sandy) Verry

### AGRICULTURE

Russell S. Adams  
E. Calvin Alexander Jr.  
Deborah Allan  
James L. Anderson  
Nicholas T. Basta  
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Airborne pollutants  
 Analytical chemistry  
 Animal effects  
 Aquifer thermal energy  
 Benthic ecology  
 Benthic ecology  
 Bioremediation  
 Bioremediation  
 Borehole geophysics  
 Chemical communication  
 Coastal transportation  
 Conservation genetics  
 Diffusion/mass transfer  
 Exotic species  
 Fish Biochemistry  
 Flood Hazard  
 Floristics  
 Geological mapping  
 Glacial geology  
 Glacial geology  
 Heavy metals  
 Hydroacoustics  
 Hydrophobic compounds  
 Isotope geochronology  
 Land reclamation  
 Macrophyte biocontrol  
 Mass Transfer  
 Mass transfer  
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 Physical hydrology  
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 Quaternary Tomography  
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 Shoreland valuation  
 Soil chemistry  
 Subsurface Mapping  
 Systems analysis  
 Tillage  
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 Transportation  
 Underground tanks  
 Water well construction  
 Weed control systems  
 Zoning

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